

REPORT

FROM

THE SECRETARY OF WAR,

IN COMPLIANCE

With a resolution of the Senate of the 10th ultimo, in relation to the fortifications and a system of defence by means of armed steamers.

MAY 2, 1838.

Read, and ordered to be printed.

DEPARTMENT OF WAR,
May 1, 1838.

SIR: I have the honor to transmit, herewith, a report and statement from the Chief Engineer, which contain the information, and express the opinion, required by the resolution of the Senate of the 10th instant. The views of this officer on the subject are concurred in by the department.

Very respectfully,

Your most obedient servant,

S. COOPER,

Acting Secretary of War.

HON. R. M. JOHNSON,
President of the Senate.

ENGINEER DEPARTMENT,
Washington, April 27, 1838.

SIR: In compliance with the requisitions of the resolution of the Senate of the 10th instant, I have the honor to submit, herewith, a statement showing the number of the fortifications of the seaboard completed; the number commenced and unfinished; the number proposed to complete the system of defence, but not commenced; the size of each so far as it can be determined, together with the armament, and peace and war garrison; the original estimated cost of construction, wherever it has been made, (this estimate not including the cost of the armament, which will be furnished by the Ordnance Department;) the amount expended on each, up to the 31st December 1837; and the estimated amount then necessary to complete each work.

It will be observed that in some instances of unfinished works, the amount of expenditures already exceeds the original estimate.

Blair & Rives, printers.

The explanation of this is found in the fluctuation of the price of labor and material, during the long period that the construction of our fortifications has been made to occupy, and the additional cost occasioned by the delay and insufficiency of appropriations.

To the query "whether, if steam batteries should be employed in defence of our harbors, bays, &c., any of such fortifications can either be dispensed with or diminished," I have the honor to reply:

That, in my judgment, it would be highly injudicious, with our present want of knowledge of the construction, durability, cost, and final efficiency of steam batteries, to derange a system of defence which has been the result of years of the fullest and most careful consideration, and substitute another element, the dependance upon which for the purpose recommended can rest as yet only upon conjecture. I would not by any means be understood to deny the advantages of steam batteries, as *auxiliaries*: these advantages are undoubtedly great, and may perhaps be found, after a careful examination by competent authority, sufficiently so to warrant the diminution, or even total omission, of some of the minor works. But to presume, without the most careful investigation into the proposed change in all its bearings, and without an absolute test of its efficiency before being adopted, to rest the defence of the seaboard upon a contingency, when sure means are so easily supplied, would be a dangerous experiment, that nothing but necessity could justify.

My opinion is founded upon the following considerations:

1st. The general system of defence as now determined, was arranged with express reference to the use of steam batteries as one element of the system. In the report of the Board of Engineers, of 1826, they are mentioned with the other auxiliaries, in the following terms: "Before quitting the subject which has hitherto occupied their attention, the board find it convenient to be more explicit as to the sense in which they have used the terms navy and fortifications." By the first, "they allude to that portion only of our military marine which is capable of moving in safety upon the ocean, and transferring itself speedily to distant points. Floating batteries, gunboats, and steam batteries, they consider as pertaining to fortifications, being always useful and sometimes indispensable as well as powerful auxiliaries. Under the term "fortifications, used as expressive of security afforded thereby to the seaboard, have been included permanent and temporary fortifications, the auxiliaries just mentioned, and both fixed and floating obstructions."

A more recent report on the same subject, by Col Totten, a member of the board, submitted in March, 1836, a date when all the capabilities of steam power for the proposed object now known must have been familiar to him, contains no allusion to any change; the "steam batteries" are again mentioned. It would not seem, therefore, the opinion of this board, that the increase of power to be anticipated in the agency of this element of defence, is yet sufficiently marked to call for any immediate action.

2d. Without going into a detailed examination of the relative merits of steam batteries and fortifications, not called for by the resolution, it is evident that the substitution in a permanent system of defence, of perishable for imperishable materials; of agents that may, from various causes, be destroyed in a moment, for those on which within certain limits perfect reliance may be placed, must be a dangerous experiment, to be tried only after the most mature deliberation. Another and a very important considera-

tion, and one in which I am happy to believe, from your observations, the opinion of the department is supported by your own, is this: that though steam batteries, when protected by fortifications, and provided with a place of refuge in case of disaster, may prove a most effectual means of annoying a hostile fleet on our shores, yet, when unsupported, they may become worse than useless, and by a reverse put in the hands of an enterprising foe a weapon of offence, of all others the most fatal to ourselves.

I can perceive, then, nothing at present, "if steam batteries should be employed," to warrant the dispensing with, or diminishing, a single fortification; and should there be any intention to act upon the suggestions of the resolution, I would respectfully but most earnestly submit the expediency, before any decisive steps are taken in a matter involving the safety of the country, of referring the whole matter to the board of officers, whose duty and constant care it has been for a series of years to watch over this important branch of the public welfare.

The resolution is returned herewith.

I am, sir,

Very respectfully,

Your obedient servant,

C. GRATIOT.

Hon. J. R. POINSETT,
Secretary of War.

STATEMENT showing the number of fortifications completed ; the number commenced and unfinished ; the number proposed to complete the system of defence but not commenced ; the size of each ; the original estimated cost of the construction of each ; the amount expended on each ; and the amount necessary to complete each.

DESIGNATION.	Perimeter of the work.	GARRISON.		Number of guns.	ESTIMATE.		Amount expended.	Amount necessary to complete.
		Peace.	Siege.		Original.	Revised.		
<i>Forts that are finished—13.</i>	<i>Yards.</i>				<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Fort Hamilton, New York harbor - - -	482	100	1,140	130	425,000 00	-	479,236 00	
Fort Lafayette, New York harbor - - -	-	50	480	96	-	-	318,305 00	
Fort Mifflin, Pennsylvania - - - - -	-	50	265	53	49,800 00	-	65,398 94	
Fort Washington, Potomac river, Maryland - - -	-	50	395	79	-	-	454,103 00	
Fort Macon, North Carolina - - - - -	271	20	280	51	175,000 00	-	349,500 00	
*Castle Pinckney, Charleston - - - - -	-	50	105	21	-	-	-	
Fort Morgan, Alabama - - - - -	675	85	750	161	693,292 00	-	1,026,777 00	
Fort Pickens, Pensacola, Florida - - - - -	-	100	1,260	252	465,300 00	677,000 00	677,000 00	
Fort Pike, Rigolets, Louisiana - - - - -	308	80	400	88	264,517 00	-	314,597 25	
Fort Wood, Louisiana - - - - -	308	80	400	88	264,517 00	-	378,642 00	
Fort Jackson, Mississippi river, Louisiana - - -	650	100	750	156	392,927 00	-	638,766 00	
Battery Bienvenu, Louisiana - - - - -	322	50	160	32	94,582 00	-	96,447 00	
Tower at Bayou Dupré - - - - -	36	50	120	24	16,677 00	-	16,677 00	
					2,841,612 00	677,000 00	4,815,449 19	
<i>Forts under construction—15.</i>								
Fort Independence, Boston harbor - - - - -	-	50	395	79	255,575 00	286,241 00	154,594 00	131,647 00
Fort Warren, George's island, Boston harbor - -	1,175	100	1,500	300	800,000 00	898,561 00	325,000 00	573,561 00
Fort Adams, Newport, Rhode Island - - - - -	1,739	100	2,440	468	730,166 52	1,314,558 51	1,202,003 25	237,488 10
Fort Schuyler, Throg's neck, New York - - -	490	100	1,250	250	632,000 00	-	282,000 00	400,000 00
Fort Columbus and Castle Williams, New York -	-	100	535	207	161,069 77	182,233 94	195,000 00	22,936 37
Fort Delaware, Delawa e river - - - - -	633	100	1,250	250	719,612 00	-	262,490 95	405,812 00

Fort McHenry, Redoubt Wood, and Covington battery, Maryland	-	-	-	-	50	500	100	68,220 00	-	100,269 77	32,415 00
Fort Monroe, Virginia	-	-	-	-	2,304	500	350	816,814 96	1,889,840 00	1,731,284 14	208,000 00
Fort Calhoun, Virginia	-	-	-	-	381	50	1,160	232	904,355 40	2,014,816 08	365,964 90
Fort Caswell, Cape Fear river, North Carolina	-	-	-	-	423	50	450	90	119,000 00	183,050 00	464,664 45
Fortifications in Charleston harbor, South Carolina	-	-	-	-	-	100	1,500	300	1,343,800 00	-	357,756 00
Fort Pulaski, Cockspur island, Savannah river	-	-	-	-	-	50	860	172	374,000 00	552,800 00	413,002 44
Fort Marion and sea-wall, St. Augustine, Florida	-	-	-	-	-	50	100	20	-	-	62,866 33
Fort on Foster's bank	-	-	-	-	-	50	720	144	-	-	262,000 00
Fort at Grand Terre, Louisiana	-	-	-	-	308	50	400	60	400,000 00	-	22,360 85
									7,324,613 65	7,322,100 53	7,348,811 59
											3,770,636 42
<i>Works proposed to complete the system of defence, but not commenced—101.</i>											
Fort at the narrows of Penobscot, Maine	-	-	-	-	500	50	500	145	150,000 00	-	150,000 00
Fort at the mouth of the Kennebec, Maine	-	-	-	-	-	50	500	150	300,000 00	-	300,000 00
Fort Preble, Portland harbor, Maine	-	-	-	-	324	50	300	82	155,000 00	-	155,000 00
Fort on House island, Portland harbor, Maine	-	-	-	-	176	25	260	53	48,000 00	-	48,000 00
Works at Eastport, mouth of St. Croix, Maine	-	-	-	-	-	25	250	50	100,000 00	-	100,000 00
Works at Machias harbor, Maine	-	-	-	-	-	25	250	50	100,000 00	-	100,000 00
Works at Mount Desert island, Maine	-	-	-	-	-	50	1,000	200	500,000 00	-	500,000 00
Works at Castine, Maine	-	-	-	-	-	10	125	25	50,000 00	-	50,000 00
Works at St. George's bay, Maine	-	-	-	-	-	-	-	-	-	-	-
Works at Broad bay, Maine	-	-	-	-	-	-	-	-	-	-	-
Works at Damariscotta bay, Maine	-	-	-	-	-	100	1,000	200	400,000 00	-	400,000 00
Works at Sheepscot bay, Maine	-	-	-	-	-	-	-	-	-	-	-
Works in Hog Island channel, Portland harbor, Me.	-	-	-	-	-	30	150	21	135,000 00	-	135,000 00
Works at the mouth of the Saco, Maine	-	-	-	-	-	-	-	-	-	-	-
Works at the mouth of the Kennebec, Maine	-	-	-	-	-	25	100	30	75,000 00	-	75,000 00
Works at York, Maine	-	-	-	-	-	-	-	-	-	-	-
Works in Portsmouth harbor, New Hampshire	-	-	-	-	-	150	1,500	300	500,000 00	-	500,000 00
Fort Pickering, Salem harbor, Massachusetts	-	-	-	-	320	50	250	50	174,000 00	-	174,000 00
Fort Winthrop, repairs, &c., Boston harbor, Mass.	-	-	-	-	-	10	250	50	50,000 00	-	50,000 00

*Included with fortifications, Charleston harbor.

†Amount now on hand will be sufficient to complete.

‡Of this amount \$843,800 is "for preserving the site of Fort Moultrie."

STATEMENT—Continued.

DESIGNATION.	Perimeter of the work.	GARRISON.		Number of guns.	ESTIMATE.		Amount expended.	Amount necessary to complete.
		Peace.	Siege.		Original.	Revised.		
<i>Works proposed to complete the system of defence, but not commenced—Continued.</i>	<i>Yards.</i>				<i>Dollars.</i>			<i>Dollars.</i>
Works at Provincetown, Massachusetts - -	-	50	1,500	300	600,000 00	-	-	600,000 00
Works at New Bedford, Massachusetts - -	-	50	750	150	300,000 00	-	-	300,000 00
Fort at Gloucester, Massachusetts - -	-	50	500	100	200,000 00	-	-	200,000 00
Fort at Nangus head, Salem harbor, Massachusetts	321	25	180	38	51,000 00	-	-	51,000 00
Fort Sewell, Marblehead harbor, Massachusetts -	356	50	280	55	174,000 00	-	-	174,000 00
Fort on Jack's point, Marblehead, harbor, Mass. -	372	25	280	60	144,000 00	-	-	144,000 00
Fort and outworks on Nantasket head, Boston harbor, Massachusetts - -	1,995	100	1,550	297	975,000 00	-	-	975,000 00
Fort on Gurnet point, Plymouth, Massachusetts -	-	25	250	50	100,000 00	-	-	100,000 00
Works at Newburyport, Massachusetts - -	-	25	250	50	100,000 00	-	-	100,000 00
Works at Beverly, Massachusetts - -	-	10	125	25	50,000 00	-	-	50,000 00
Redoubt on Hog island, Boston harbor, Mass. -	241	25	150	21	43,000 00	-	-	43,000 00
Reducing depth of water in Broad Sound passage -	-	-	-	-	210,000 00	-	-	210,000 00
Reducing altitude of Gallop's island - -	-	-	-	-	3,000 00	-	-	3,000 00
Works at Nantucket harbor, Massachusetts - -	}	50	625	125	250,000 00	-	-	250,000 00
Works at Edgartown harbor, Massachusetts -								
Works at Falmouth harbor, Massachusetts -								
Works at Holmes's hole, Massachusetts - -								
Works at Tarpaulin cove, Massachusetts - -	384	25	580	96	123,000 00	-	-	123,000 00
Fort on Rose island, Narragansett roads, R. Island -								
Works on Conanicut island, Narragansett roads, Rhode Island - -								
Repairs and modifications of old Fort Wolcott, Newport harbor, Rhode Island - -	3,618	100	1,800	386	1,200,000 00	-	-	1,200,000 00
Repairs and modifications of old Fort Greene, Newport harbor, Rhode Island - -	-	50	250	45	80,000 00	-	-	80,000 00
Repairs and modifications of old Fort Greene, Newport harbor, Rhode Island - -	-	-	50	8	20,000 00	-	-	20,000 00
Closing west passage of Narragansett roads -	-	-	-	-	307,000 00	-	-	307,000 00

Fort Griswold, New London harbor, Connecticut	936	50	830	106	198,000 00	-	-	198,000 00
Fort at Stonington harbor, Connecticut	-	50	375	75	200,000 00	-	-	200,000 00
Fort Trumbull, New London harbor, Connecticut	128	50	460	62	116,000 00	-	-	116,000 00
Works at the mouth of Connecticut river, Connecticut	-	25	250	50	100,000 00	-	-	100,000 00
Fort Hale, New Haven harbor, Connecticut	384	10	220	30	48,000 00	-	-	48,000 00
Fort Wooster, New Haven harbor, Connecticut	240	10	155	16	42,000 00	-	-	42,000 00
Works for defence of several harbors and towns between New Haven and New York on both sides of the sound	-	50	500	100	200,000 00	-	-	200,000 00
Fort on Wilkins's point, New York harbor	430	50	1,336	184	686,000 00	-	-	686,000 00
Fort Tompkins and dependences, New York harbor	726	50	970	114	654,000 00	-	-	654,000 00
Works at Gardiner's bay, New York	-	50	750	150	400,000 00	-	-	400,000 00
Works at Sag harbor, New York	-	25	250	50	100,000 00	-	-	100,000 00
Fort Wood, New York harbor	-	25	225	45	80,000 00	-	-	80,000 00
Fort Gibson, New York harbor	-	25	100	14	50,000 00	-	-	50,000 00
Fort on Middle Ground shoal, New York harbor	550	100	1,760	342	1,681,412 00	-	-	1,681,412 00
Fort on East Bank shoal, New York harbor	550	100	1,760	332	1,681,412 00	-	-	1,681,412 00
Works to cover the Delaware Breakwater harbor, Delaware	-	100	1,125	225	600,000 00	-	-	600,000 00
Fort opposite Fort Delaware, on right bank	200	50	760	112	521,000 00	-	-	521,000 00
Fort on Elk river, to cover the debouché of the Chesapeake and Delaware canal and railroad, Maryland	-	50	760	112	300,000 00	-	-	300,000 00
Fort on Soller's Point flats, below Baltimore, Maryland	305	100	835	159	1,000,000 00	-	-	1,000,000 00
Fort on Point Patience, Patuxent river, Maryland	286	50	400	80	246,000 00	-	-	246,000 00
Fort on Hawkin's point, below Baltimore, Maryland	957	100	845	121	376,000 00	-	-	376,000 00
Fort on Thomas's point, Patuxent river, Maryland	328	25	350	70	259,000 00	-	-	259,000 00
Fort on Cedar point, Potomac river, Maryland	-	50	550	110	300,000 00	-	-	300,000 00
Works at St. Mary's river, Maryland	-	50	550	110	300,000 00	-	-	300,000 00
Works at Annapolis harbor, Maryland	-	50	500	100	250,000 00	-	-	250,000 00
Fort on Bald Head island, Cape Fear river, North Carolina	423	50	450	90	180,000 00	-	-	180,000 00
Redoubt on Federal point, Cape Fear river, North Carolina	538	25	200	43	18,000 00	-	-	18,000 00
Works in Port Royal roads, South Carolina	-	50	550	110	300,000 00	-	-	300,000 00
Works at Georgetown harbor, South Carolina	-	50	500	100	250,000 00	-	-	250,000 00
Works at the mouth of the Santee, at Bull's bay, and other inlets, between Georgetown and Charleston, South Carolina	-	25	250	50	100,000 00	-	-	100,000 00

STATEMENT—Continued.

DESIGNATION.	Perimeter of the work.	GARRISON.		Number of guns.	ESTIMATE.		Amount expended.	Amount necessary to complete.
		Peace.	Siege.		Original.	Revised.		
<i>Works proposed to complete the system of defence, but not commenced—Continued.</i>	<i>Yards.</i>				<i>Dollars.</i>			<i>Dollars.</i>
Works at Stone inlet, South Carolina	-	10	125	25	50,000 00	-	-	50,000 00
Works at North Edisto inlet, South Carolina	-	10	125	25	50,000 00	-	-	50,000 00
Works at South Edisto inlet, South Carolina	-	10	125	25	50,000 00	-	-	50,000 00
Works at St. Helena sound, South Carolina	-	50	375	75	150,000 00	-	-	150,000 00
Fort at Tybee island, Georgia	-	25	300	75	150,000 00	-	-	150,000 00
Repairs on Fort Jackson, Savannah river, Georgia	-	25	200	30	50,000 00	-	-	50,000 00
Works to command entrance to Cumberland sound, mouth of St. Mary's river, Georgia	-	50	550	110	200,000 00	-	-	200,000 00
Works at Wassaw sound, Georgia	-	50	500	100	200,000 00	-	-	200,000 00
Works at Ossabaw sound, Georgia	-	50	500	100	200,000 00	-	-	200,000 00
Works at St. Catharine's sound, Georgia	-	50	500	100	200,000 00	-	-	200,000 00
Works at Sapelo sound, Georgia	-	50	500	100	200,000 00	-	-	200,000 00
Works at Doby inlet, Georgia	-	50	500	100	200,000 00	-	-	200,000 00
Works at Altamaha sound, Georgia	-	50	500	100	200,000 00	-	-	200,000 00
Works at St. Simon's sound, Georgia	-	50	500	100	200,000 00	-	-	200,000 00
Works at St. Andrew's sound, Georgia	-	50	500	100	200,000 00	-	-	200,000 00
Fort on Dauphin island, Mobile bay, Alabama	675	100	900	128	880,000 00	-	-	880,000 00
Works at Perdido bay, Alabama	-	50	500	100	200,000 00	-	-	200,000 00
Tower at Pass-au-Heron, Alabama	36	10	60	12	25,000 00	-	-	25,000 00
Works to protect the navy yard at Pensacola from lateral attack through the bays, Florida	-	50	1,000	50	300,000 00	-	-	300,000 00
Works at Barancas, Pensacola	-	50	250	50	100,000 00	-	-	100,000 00
Works at St. Augustine	-	25	100	20	50,000 00	-	-	50,000 00

Works at Key West and Tortugas -	-	-	500	2,500	500	3,000,000 00	-	-	3,000,000 00
Works at Charlotte harbor, Florida	-	-							
Works at Espiritu Sante bay, Florida	-	-							
Works at Appalachicola, Florida	-	-							
Works at Appalache bay, Florida	-	-	250	1,250	250	1,000,000 00	-	-	1,000,000 00
Works at St. Joseph's bay, Florida	-	-							
Works at St. Rosa bay, Florida	-	-							
Fort St. Philip, Mississippi river, Louisiana	-	-	50	400	60	117,000 00	-	-	117,000 00
						26,875,824 00	-	-	26,875,824 00

